U.S. Department of Transportation
United States Coast Guard

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2400
September 11, 1996

The Secretary
Federal Communications Commission
1919 M Street
Room 222
Washington, D.C. 20554

Dear Mr. Secretary

Enclosed are the Comments of the U S Coast Guard in response to the Notice of Proposed Rule Making in IB Docket No. 96-132, Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band.

Sincerely,

J. D. HERSEY JR.
Chief, Spectrum Management Division
By direction

Encl: (1) USCG Comments

Copy: Chief, International Bureau

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

In the Matter of	)	
	)	**IB Docket No. 96-132**
Establishing Rules and Policies for the Use of Spectrum for Mobile Satellite Service in the Upper and Lower L-band for Mobile	)	

COMMENTS OF THE UNITED STATES COAST GUARD

The United States Coast Guard (Coast Guard) respectfully submits these Comments in response to the Notice of Proposed Rulemaking (Notice) in the above-captioned proceeding.

Introduction

1. The Coast Guard provides maritime distress and safety services to the maritime community within its areas of responsibility. It relies on the lower L band, or Maritime Mobile Satellite band, for all of its two-way satellite communications with ships at sea for distress and safety purposes. The Global Maritime Distress and Safety System (GMDSS), developed by the International Maritime Organization and International Telecommunications Union, and mandated on ships on international voyages by the Safety of Life at Sea Convention, has specified this band for all of its satellite telecommunications. The Coast Guard therefore has a very strong interest in this proceeding. Although we have no objection to the Federal Communications Commission (Commission) proposal to assign coordinated spectrum as proposed in this proceeding, we are opposed to permanently waiving the priority preemption rules for half-duplex mobile earth stations (METs) operating in the bands used by the GMDSS.

Assignment of Spectrum in the Entire L-band

2. During the last several years the Coast Guard has worked with the Commission and National Telecommunications and Information Administration (NTIA) in developing means for allowing non-maritime satellite systems to share the spectrum used by maritime distress and safety services, without interfering with those safety telecommunications. U.S. footnote 315 of the Table of Frequency Allocations, 47 CFR 2.106, which defines the use of the band for non-maritime systems, was established in consultation with the Coast Guard for that purpose. We support the establishment of "generic" mobile satellite systems, those systems used for land, maritime and aeronautical mobile purposes, provided they do not interfere with maritime distress & safety telecommunications; therefore, we have no objection to the assignment of spectrum to these systems from the entire L-band. We also have no objection to the Commission's proposed policy of permitting the American Mobile Satellite Corporation (AMSC) to operate in the entire coordinated 28 MHz L-band spectrum, as proposed by the Commission in this proceeding, provided the terms of U.S. footnote 315 are complied with, and no interference is caused to distress and safety telecommunications.

Maritime Distress and Safety Services

3. The Commission notes that "Maritime distress and safety services in the lower L-band have been operational for years and are sufficiently dynamic and robust to accommodate the operation of half-duplex METs" (Notice, paragraph 27). The Coast Guard must respectfully

disagree. GMDSS satellite equipment, while improving the Coast Guard's distress and safety communications with ships, is not as "dynamic and robust" as the Commission believes. For example, during the rescue operation of the passenger vessel *Achille Lauro*, which caught fire off the Somalian coast on November 30, 1994, rescue coordination center authorities lost contact with the rescuing vessels for two hours, due to interference caused by calls from the media and other authorities, and a lack of preemptive priority capability in the shore-to-ship direction (International Maritime Organization (IMO) document COMSAR 1/3/6 of 14 December 1995, submitted to IMO by the International Chamber of Shipping). This problem was reported to the IMO in February 1996; to the Coast Guard's knowledge, no corrective action has yet taken place. Although the *Achille Lauro* incident did not involve the use of half-duplex METs, it did involve a system that is in many ways similar to those terminals, and requires the same portion of the L-band spectrum used by those terminals. Other GMDSS problems can be directly attributed to these terminals. For example, Standard C half-duplex METs operated by Inmarsat are incapable of identifying and protecting maritime safety messages other than distress alerts, such as those involving medical emergencies, warnings to mariners, and most rescue coordination center communications. Deliveries of such important messages have occasionally been delayed significantly, provisions do not yet exist to guarantee message delivery, or for a reliable, telex-like answerback to messages indicating delivery to the addressee, urgent shore-to-ship messages have often not been acknowledged, and many false distress messages have been transmitted[1]. We have been working closely with IMO to

[1] Norway reported to the International Maritime Organization that over a four year period, 154 Inmarsat C distress alerts out of a total of 158 received within their search and rescue areas of responsibility alone, were false. (Report of GMDSS Alerts, from 1991 through November 1995, within the Norwegian SRR, IMO COMSAR/INF.14, 22 Dec. 1995)

resolve these problems, and will continue working together as GMDSS usage grows and more problems are uncovered. Although these problems have not diminished the value of the GMDSS, the Commission's assertion that these services are "sufficiently dynamic and robust" to permit some services to operate not in strict compliance with U.S. 315 is simply not true.

Why U.S. 315 Could be Temporarily Waived

4. The Commission noted that it temporarily waived U.S. footnote 315 on August 1, 1995 and September 6, 1995 (Notice, paragraph 26). The Coast Guard was consulted by both the Commission and the NTIA prior to these decision, and after extensive discussions, we did not object to this action. Although Inmarsat ship earth stations have been in use for years, their numbers on ships have been relatively small. Although the GMDSS is now in force, and will become mandatory on some 35,000 - 50,000 ships on international voyages by February 1, 1999, only about one third of such ships now carry the equipment. Few other ships, such as the approximately 30,000 American commercial fishing vessels, now carry such equipment. Furthermore, only a handful of the over one million radio-equipped American recreational vessels carry satellite equipment.

5. The Coast Guard assented to both temporary waivers for a variety of reasons:

   - The Coast Guard supports "generic" mobile satellite services such as that operated by AMSC,
   - The number of ships carrying GMDSS equipment has been relatively small,
   - The number of users of AMSC terminals was also relatively small, and
   - U.S. 315 would exist to protect maritime safety telecommunications after the waiver had expired.

   However, the Coast Guard expects that as the GMDSS full implementation date gets closer, and satellite telecommunications costs decrease, tens and perhaps hundreds of thousands more vessels will begin using these systems, and using them for longer periods. We also expect AMSC's "generic" use of these terminals to grow as well. If conditions for use in the lower L band become less restrictive than those for the upper L band, lower L band congestion will increase further. As mobile terminal usage increases and channel congestion becomes more of a problem, and as new safety applications for these MET's (such as vessel tracking) are adopted, the Coast Guard may ultimately not be able to guarantee that maritime distress and safety telecommunications on these systems will remain reliable if the waiver to U.S. 315 becomes permanent as proposed by the Commission. The Coast Guard therefore opposes the Commission's proposal to permanently waive the provisions of U.S. 315 for half-duplex MET's in the lower L-band.

A Waiver to US 315 May Not be Necessary

6. The Coast Guard understands, in discussions with NTIA, that technical means acceptable to all parties may exist to provide rapid preemption of half-duplex (Standard C) METs in accordance with the requirements of U.S. 315, without requiring a waiver to that footnote. These or similar means should be pursued before consideration is given to granting a permanent waiver as proposed by the Commission. In the interim, the Coast Guard would urge the Commission to consider the granting of temporary waivers for a limited number of METs, in the manner accomplished in August and September of last year, on a case-by-case basis as needed, until a more permanent solution can be found.

Respectfully Submitted,

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By Direction of the Commandant

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